

## A New Look at Practitioner Learning in International Development

Sam Polk Aprille Knox

Results for Development Institute November 2015

**Results for Development Institute (R4D)** is a nonprofit organization whose mission is to unlock solutions to tough development challenges that prevent people in low- and middle-income countries from realizing their full potential. Using multiple approaches in multiple sectors, including global education, global health, governance, and market dynamics, R4D supports the discovery and implementation of new ideas for reducing poverty and improving lives around the world.

This paper was prepared with with support from the Hewlett Foundation. It was authored by Sam Polk and Aprille Knox. For more information, please contact Sam Polk at spolk@r4d.org.

Copyright © 2015 Results for Development Institute 1111 19th Street, N.W., Suite 700, Washington, DC 20036

## Table of Contents

Executive Summary and Recommendations	1
Chapter 1. Introduction	3
1.1 Study Objectives and Methodology	3
1.2 Defining Learning	4
Chapter 2. Literature Review	5
2.1 Existing Critiques of Online Learning Efforts	5
2.1.1 Critiques of Online Knowledge-Sharing Mechanisms	5
2.2 Adult Learning	6
2.3 How Ideas and Innovations Spread	7
2.3.1 Diffusion of Innovations	8
2.4 Knowledge Management and Organizational Learning	9
2.4.1 Knowledge Management and Organizational	
Learning in International Development	9
2.5 Communities of Practice	10
2.5.1 History and Definition	10
2.5.2 Best Practices of Offline CoPs	10
2.5.3 Virtual CoPs	11
2.6 Information Divide	11
Chapter 3. Insights Harvested from R4Ds own Experience	13
Conclusion	16
Bibliography	17

ii

In seeking to develop ways to build upon and improve the many learning-related initiatives across our portfolio of public health, education, and governance programs at Results for Development, our team found ourselves asking fundamental questions about practitioner learning in international development. How do frontline practitioners learn? Even more fundamentally, what do we mean by learning? Is there a "best" modality for facilitating practitioner learning? Or does the "ideal" modality vary depending upon the context? If so, how?

To guide our pursuit of answers to these thorny questions, we reviewed literature on a wide ranging set of topics connected to practitioner and professional learning. The hope was to move beyond the often trite guidance available to international development practitioners involved in learning activities. Instead, we wanted to draw on lessons that have emerged from years of inquiry in wellestablished fields with clear relevance to practitioner learning. Those fields are summarized in Table A below.

To sharpen these ideas, we reviewed critiques leveled at online knowledge repositories and learning platforms similar to the online platforms our team built to support practitioner learning and facilitate knowledge exchange. Determining how to most effectively leverage these resources to support practitioner learning was the immediate impetus for undertaking this study. However, these fundamental questions about learning necessitated that we look at both on- and off-line contexts, so the scope of our inquiry, and the implications of our findings, touch on both. Finally, we harvested and summarized insights from Results for Development's extensive experience designing and implementing learning efforts for multiple audiences, and across multiple sectors.

The findings of this review suggest that there is no single best way to facilitate learning, and no single channel that is superior to others. Rather, the optimal way to promote and facilitate learning is a function of the interactions between the nature of the content to be learned, the actors doing the learning, and the overall objectives of the learning. Important to our purposes, practitioner learning with regard to complex, heavily context-dependent social interventions likely requires an iterative approach that allows for experimentation, reflection, and further refinement of ideas. Simply creating awareness of new information or a new idea, by contrast, might be possible through a static website combined with outreach. Identifying the exact ways different types of content, learning objectives, and learner context should inform learning design are a logical next step for taking this work forward.

Table A: Fields Relevent to Practitioner Learning		
Bodies of Knowledge	Description	
Adult Learning Theory	Identifies adults' unique needs and characteristics in their learning processes, and provides a framework for understanding how adults approach learning.	
Diffusion of Innovations	Assesses why it is easier to spread and apply some knowledge, while other knowledge seems impervious to efforts to drive its uptake.	
Knowledge Management and Organizational Learning	Outlines how the structures, cultures, and processes within organizations shape learning.	
Communities of Practice	Examines best practices for knowledge sharing among communities that exist within a common domain of shared passions, concerns, or interests.	
Information Divide	Unpacks the power dynamics that influence the spread and uptake of knowledge and learning across the "North-South" divide.	

From each separate set of literature, we developed specific recommendations for how to design and implement new learning activities, which follow each section of the report. Below are a distilled set of priority recommendations that follow from the findings of this research.

- 1. Ensure learning efforts offer clear, practical value to participants, including through structuring activities around real-life problems to be addressed, rather than around pre-determined content.
- 2. Involve learners in the planning, design, and evaluation of learning activities to ensure learning activities are relevant to their needs.
- **3.** Create opportunities for learning-by-doing, rather than simply transmitting new information to learners, and allow space for reflection on how new knowledge and experience has challenged or changed learners' pre-existing assumptions.

- **4. Establish clear learning goals** and ensure that learning strategies and approaches are tailored to achieving those goals and are appropriate to the nature of the content being learned.
- 5. Encourage poor and marginalized voices and view their knowledge as a valuable contribution to the learning process.
- 6. Take into account organizational context including fit with existing incentives, culture, norms, and available resources — when attempting to drive uptake of ideas or practices.
- 7. Create trust, openness, and dialogue among learners first, and ensure any technological solutions build on and reinforce existing connections.
- 8. Facilitate genuine dialogue and knowledge exchange rather than passive learning.

"Learning" is quickly replacing "innovation" and "scale" as the buzzword of choice in the international development community, and with good reason. This emphasis on learning reflects the insight that developing innovative approaches requires assimilating lessons from past experiences, continuously iterating and adapting, and understanding why existing strategies may be insufficient. The so-called "learning agenda" recognizes that the muddy work of promoting development in wildly different contexts requires more than just figuring out "what works" and repeating it in as many places as possible. But as institutions in the Global North who are interested in supporting learning, how well do our strategies and efforts comport with how development practitioners actually learn?

This study has grown out of an effort to look at the tools, resources, and strategies we have developed to support practitioner learning and to ask if they are as effective as possible. Our team at Results for Development (R4D) has for many years led collaborative practitioner-to-practitioner learning efforts, both virtual and in-person, across multiple sectors. This has involved developing networking and knowledge-sharing platforms that showcase innovations in health education, and social accountability.<sup>1</sup> It has also involved facilitating a network of policymakers and practitioners working on universal health coverage around the world.<sup>2</sup> These efforts and the lessons that have emerged from developing and implementing them over the years are described in the final section of this report. As we work to improve these initiatives in and to find new ways that more to address tough development challenges, we have decided to reflect on our experience to this point and to investigate additional methods for improving knowledge transfer to and within our particular communities of interest.

Doing this requires that we develop a more nuanced view of what learning is and how our communities of practitioners and policymakers actually learn. Our interest grows out of our efforts in developing resources that in many cases include central online component, but for the purpose of this paper, it encompasses practitioner learning in general – not just online. We are therefore also keenly interested in which offline activities, practices, and mechanisms best facilitate practitioner learning.

We are far from the first people to ask this, of course, but our hope in this short paper is to get beyond some of the tropes one hears about developing strategies to promote learning – particularly efforts to do so through online tools. "Understand practitioner needs" and "do more than just post information and hope people will use it" are, of course, essential guiding principles for learning activities. Still, they provide something far less than a coherent theory of how individuals in our community of interest acquire new information and apply it in ways that improve the success of their work.

# 1.1 Study Objectives and Methodology

Helping bring necessary nuance to that theory and developing practical guidance for our own work developing effective learning efforts are the goals of this paper. To do this and to move beyond the platitudes that characterize much of the guidance for designing learning efforts in international development, we attempted to identify different bodies of knowledge with broad relevance to professional practitioner learning. The obvious place to start answering the question of how practitioners learn was learning theory, and in particular, adult learning theory.

We also recognized that other fields of study have important insights for answering this question. Part of the learning equation involves understanding why different types of practices and ideas take hold, while others do not, so we consulted the foundational theories about the diffusion of innovations. Much of the learning we are interested in takes place within organizations or other professional communities,

<sup>&</sup>lt;sup>1</sup> These include the Center for <u>Health Market Innovations</u>, the <u>Center for Education Innovations</u>, <u>Harnessing Non-State Actors for Better Health for the Poor</u>, and the <u>Social Accountability Atlas</u>.

<sup>&</sup>lt;sup>2</sup> The <u>Joint Learning Network</u> for Universal Health Care.

so we also wanted to understand how knowledge management and organizational practices shape and can support learning as well as how communities of practice function most effectively. Finally, learning in international development takes place against a backdrop and history of unequal power relations, systemic injustice, and differential access to resources that map to the so-called "North-South divide," so we explored this body of knowledge to better understand how these factors shape learning.

Undoubtedly there are other worthwhile fields of study for understanding practitioner learning, but these fields stood out as clear priorities. We conducted surface-level reviews of this literature to extract headline insights that might help provide an intellectual basis for designing future learning efforts. These bodies of knowledge are summarized in Table 1.1 below.

Finally, one of the best sources of insights on this topic is our own experience. R4D's efforts over the years have spanned development sectors, from health and education, to governance, nutrition, and water and sanitation. Within those different sectors, our teams have experimented with a efforts to drive learning and catalyze action through networks linking different development actors, collaborative efforts to produce and share new knowledge, and innovative efforts to bring structured learning into the project design process. We have attempted to harvest the rich insights this experience and capture them in section 3.0 below.

### **1.2 Defining Learning**

Before jumping into a review of the literature, we first want to be clear about what we mean by "learning," i.e. whose learning we are talking about and for what purpose? We understand learning to be the process by which individuals acquire and use new knowledge. In other words, learning is not just person A sharing information with person B. It is a process that includes person B applying that new knowledge in her own context, reflecting on the experience, and further refining that new knowledge. We are specifically concerned with learning among development practitioners, particularly those working in developing countries. These include government bureaucrats, NGO project managers, and civil society activists and reformers.

We are interested in understanding how international organizations can support learning processes and best identify, spread, and support the uptake of good ideas and practices. We are primarily interested in how development practitioners gain knowledge from outside their own experience, and then deploy that knowledge to improve the effectiveness of their own work. As a result, we have intentionally excluded from this study the monitoring and evaluation practices organizations can use to capture lessons from their own work.

Table 1.1: Overview of Learning Bodies of Knowledge		
Bodies of Knowledge	Description	
Adult Learning Theory	Identifies adults' unique needs and characteristics in their learning processes, and provides a framework for understanding how adults approach learning.	
Diffusion of Innovations	Assesses why it is easier to spread and apply some knowledge, while other knowledge seems impervious to efforts to drive its uptake.	
Knowledge Management and Organizational Learning	Outlines how the structures, cultures, and processes within organizations shape learning.	
Communities of Practice	Examines best practices for knowledge sharing among communities that exist within a common domain of shared passions, concerns, or interests.	
Information Divide	Unpacks the power dynamics that influence the spread and uptake of knowledge and learning across the "North-South" divide.	

# 2.1 Existing Critiques of Online Learning Efforts

One impetus for this study is the proliferation of so-called "zombie platforms" – efforts to create knowledge repositories and online knowledge exchange platforms that, after post-launch fanfare, garner little interest or use. The burgeoning set of critiques of such efforts has guided our inquiry, and what follows is a set of highlights from those critiques.

Online knowledge-sharing mechanisms come with many names – platforms, portals, gateways, repositories, databases, and likely others. Though their structure and functions may vary slightly, they typically serve to: connect actors across geographic distance, make information and data widely available, facilitate discussion and learning, or some combination of these. The attraction of such resources is obvious – the potential replacement of exclusive, resource- and time-intensive, in-person events with solutions that transcend the limits of time and space to make vast amounts of knowledge available in a usable format for limitless numbers of users.

The question, however, is whether the mere availability of information through such platforms actually leads to learning that informs behavior on the ground, ultimately leading to impact. On this question, we have little more than anecdotes to go by. As Ward et al. (2009) point out, "there remains a lack of evidence on how knowledge brokering works, the factors that influence it, and its effectiveness, resulting in the fact that portals are not always designed with a thorough understanding of user needs, priorities, and preferences." Nevertheless, critiques of such platforms have zeroed in on the ways simply providing information fails to translate into change.

#### 2.1.1 Critiques of Online Knowledge-Sharing Mechanisms

Critics often point out that online mechanisms for knowledge sharing are most effective when seen as part of a solution and accompanied by a diverse range of both online and offline activities. Moreover, they note the following common failures<sup>3</sup> in efforts to produce knowledge-sharing platforms:

- Often there is no discernable **demand** for such products, and they meet a similar fate to the <u>87 percent of World Bank policy reports that have been downloaded less than 250 times</u> and 13 percent that have never once been downloaded.
- They have no clearly defined **audience** and often aim to meet the needs of too many different stakeholder groups.
- They are often **redundant** with existing efforts.
- Relatedly, they reflect missed opportunities to **partner** with other organizations to minimize financial burden and ensure coordination with others working in the field.
- They are often not **cost-effective**, requiring high start-up costs as well as costs related to maintenance, ongoing staff support, and frequent redesign.
- They are often **technologically inappropriate** for users who face constraints of low bandwidth or are otherwise mismatched to users' technological resources.

The remainder of this paper is dedicated to harvesting insights from the bodies of knowledge introduced above, in order to develop guidance for how we might overcome these shortcomings as NGO practitioners working to develop on- and offline learning efforts and drive more effective practice.

• <u>10 Portal Pitfalls and How to Avoid Them</u>

 <sup>&</sup>lt;sup>3</sup> For more information on the critiques and common failures cited for online knowledge sharing platforms, see the following blogs and online articles:
<u>Seeking a cure for portal proliferation syndrome</u>

<sup>•</sup> What makes web users 'tick'?

<sup>• &</sup>lt;u>A Toolbox of Toolboxes: Has 'Knowledge Sharing' Gone Too Far?</u>

<sup>•</sup> Brains, Gore, and User-Centric Design: What We Learned About Zombie Tech Projects

 <sup>&</sup>lt;u>The road to hell is paved with brightly coloured bubble maps</u>

## 2.2 Adult Learning

The field of adult learning emerged over the last halfcentury out of recognition that adults have unique needs and characteristics in their learning processes. It provides a framework for understanding how adults approach learning as well as guiding precepts for structuring learning activities.

In the last 20 years, scholars have attempted to relate these concepts to practical concerns like ongoing professional education, knowledge transfer within companies, online course development, and more. At the same time, they have grappled with alternative frameworks for how learning happens which compare approaches to adult education, reexamine its aims, debate how learner context (learning styles, age, gender, race, class, etc.) influences how people learn, and investigate the most effective environments and means for them to do so.

Much recent research has elaborated on the insight that learning-by-doing can produce practical and lasting knowledge. Core to experiential learning is the application of new knowledge along with reflection and analysis on the results. Researchers have recognized that learning is a profoundly social process and that real-world circumstances form the best learning environments, because learning is inherently social, and interactions, tools used, and broader context shape learning (Hansman 2002).

Both the adult learning theory developed by Malcolm Knowles (summarized in Box 2.2.1 below) and the

#### Box 2.2.1: Knowles — "The Adult Learner"

The seminal work in the field is Malcolm Knowles's "The Adult Learner," first published in 1973, which set forth key concepts that continue to shape debates in the field. Despite its widespread influence, Knowles's theory has come under criticism for its exclusion of the ways in which specific contexts shape how people best learn. Many theorists dismiss the notion that a single type of learner exists; instead, they argue that people are shaped by their contexts and experiences (Kilgore 2002). Moreover, despite the proliferation of typologies purporting to help people and organizations understand individual learning styles, and therefore understand how best to cater to them, experts generally dismiss these, pointing to conceptual ambiguity and lack of empirical basis (Cercone 2008). In other words, not only is there no single type of learner, there are no reliable categories of learners that can form the basis for developing learning activities.

Knowles's key precepts about adult learners provide helpful guidance for how to tailor learning opportunities. He posited five assumptions about adult learning, or andragogy, and corresponding suggestions for how to shape learning efforts.

- 1. **Concept of learner:** Learners become less dependent on instructors as they move toward adulthood and become more capable of self-direction. As a result, an experiential approach may be better for adults.
- 2. Role of learner's experience: Insights from learners' own personal experiences enrich their understanding of their own material and that of their peers. As a result, learners should be able to relate material to their own experiences and share their experiences with others.
- 3. **Readiness to learn:** Adult learners are often most ready to learn things necessary for dealing with real-life problem or tasks. As a result, curricula should be designed to provide value through and for practical application.
- 4. **Orientation to learning:** Adults tend to place less emphasis on learning subject matter and more on learning competencies; learning opportunities should therefore be oriented toward improving performance rather than simply increasing knowledge.
- 5. Knowles later added a fifth **Motivation to learn:** As the learner matures, the motivation for learning becomes more internal, making it all the more important to ensure that learning efforts address what adults themselves see as important.

Knowles also posited four principles of adult education that follow from this framework (Knowles 1984).

- 1. Adults need to be involved in the planning and evaluation of their instruction.
- 2. Experience (including mistakes) provides the basis for learning activities.
- 3. Adults are most interested in learning subjects that have immediate relevance and value to their job or personal life.
- 4. Adult learning is problem-centered rather than content-oriented (Pappas 2013).

focus on different experiential approaches are premised on the insight that learners often construct their own meaning in the learning process through non-linear, recursive processes (Heuer and King 2008, referencing Fostnot 1996) rather than simply receiving knowledge from someone else. This conceptualization of learning is less about "changing what we know" and more about changing "how we know it" (Baumgartner 2001). Transformative learning theory is one example of this approach. It involves educators identifying or facilitating triggering events that force learners to articulate and question their assumptions about an issue, entertain alternative understandings through discourse, revise their assumptions and perspectives, and act on those revisions. (Cranston 2002).

Such constructivist, experiential approaches to learning do not predetermine the content to be learned; instead, they view the "what" in the learning equation as an emergent property of the learning process. This would appear to have important implications for those attempting to promote learning about how to address complex, often ambiguous social problems. "Experts" rarely have the answers practitioners need; instead, through dialogue, trial and error, and reflection, new approaches emerge, grounded in particular contexts and shaped through iteration and adaptation.

#### **Recommendations:**

- Ensure learning efforts offer clear, practical value to participants by structuring activities around reallife problems to be addressed rather than around content.
- 2. Involve learners in the planning and evaluation of learning activities.
- 3. Create opportunities for learning-by-doing rather than simply transmitting new information to learners.
- 4. Allow space for learners to articulate assumptions behind their work and for reflection on how new knowledge and experience have challenged or changed those assumptions before providing an opportunity to try new approaches.

# 2.3 How Ideas and Innovations Spread

The literature on the diffusion of innovations provides a rich theoretical framework for answering thorny questions about learning: How does the nature of informational content change the likelihood that it will spread? And why do some good ideas spread faster than others?

Before outlining some of the guiding framework from that field, it's worth noting that many contributions to this field have come from those with narrow interests in the spread of material products, specifically technology, and especially from marketing literature. "Innovation" can include new ideas and practices, not just material objects, and many useful insights have emerged from the focus on product development and technology. However, the needs, tactics, and moral economy of those marketing new products differ in important ways from those working to help the poor improve their lives and livelihoods.

There is, however, a robust literature on service delivery – and in particular, health – which has also drawn from this research in order to identify better ways to promote the adoption of good practices. In both the popular press – see, for instance, <u>Atul</u> <u>Gawande's article in *The New Yorker*</u> on the spread of innovations in health practices – and academic journals, scholar-practitioners have tried to make sense of how the nature of innovations themselves and the means through which those innovations are communicated affect the rate and scale of adoption. In a meta-study on the "diffusion of innovations in service organizations," Greenhalgh et al. (2004) identified six determinants of whether service organizations adopt new innovations:

- 1. **Tension for change** Organizations are more likely to adopt innovations if staff feel like change is necessary.
- 2. **Innovation-system fit** Innovations that fit with existing organizational values, norms, skills, and ways of working are more likely to be adopted.
- Assessment of implications Innovations are more likely to be adopted when their implications are fully anticipated and assessed.
- Support and advocacy Innovations are more likely to be adopted when supporters are more strategically placed and numerous than opponents.
- 5. **Dedicated time and resources** Organizations are more likely to adopt innovations when there are budgeted resources for adopting the innovation.
- 6. **Capacity to evaluate the innovation** Innovations are more likely to be adopted when organizations can monitor and evaluate their impact.

#### 2.3.1 Diffusion of Innovations

This focus on innovation, behavior change, and medicine draws heavily on foundational theories of the spread of innovations developed by Everett Rogers beginning in the early 1960s. Now in its fifth edition, Rogers's authoritative *Diffusion of Innovations* draws on decades of research and includes definitions and a conceptual framework that can help us unpack the learning question by clarifying why it is easier to spread and apply some knowledge while other knowledge seems impervious to efforts to drive its uptake. A summary of key concepts and precepts of that framework are described in Box 2.3.1.

Rogers's framework and the literature on diffusion of innovations provides important insights for those

#### Box 2.3.1: Everett Rogers — Diffusion of Innovations Framework

Rogers defines diffusion as "the process in which an innovation is communicated through certain channels over time among the members of a social system. It is a special type of communication, in that the messages are concerned with new ideas." It is "a kind of *social change*, defined as the process by which alteration occurs in the structure and function of a social system," (6). He defines *innovation* as "an idea, practice, or object that is perceived as new by an individual or other unit of adoption," (12).

Rogers notes five qualities influencing different innovations' rates of adoption:

- 1. "Relative advantage is the degree to which an innovation is perceived as better than the idea it supersedes."
- 2. "Compatibility is the degree to which an innovation is perceived as being consistent with the existing values, past experiences, and needs of potential adopters," (15).
- 3. "Complexity is the degree to which an innovation is perceived as difficult to understand and use."
- 4. "Trialability is the degree to which an innovation may be experimented with on a limited basis."
- 5. "Observability is the degree to which the results of an innovation are visible to others," (16).

Those are qualities of the innovation itself. But what about the efforts to spread innovations? Rogers differentiates between "mass media channels," which he says are effective at rapidly informing a large audience about the existence of an innovation, and "interpersonal channels," which are essential to persuading individuals to accept a new idea. Want people to know about an innovation? Blast it out over the internet. Want them to actually do something about it? You need people they trust – people they know, opinion leaders, or others – to convince them that the innovation will help them address their particular needs.

Those "channels" also correspond to stages in the "innovation-decision process" as Rogers defines it.

- 1. **Knowledge** Individuals become aware of the innovation and understand how it functions. Mass communication is key at this stage.
- 2. **Persuasion** Individuals develop positive or negative attitudes toward the innovation and critically seek information on how to mitigate potential risks and uncertainty associated with adopting the innovation. Interpersonal communication channels are central to individuals gaining this "innovation-evaluation" information and helping them to understand not just whether an innovation is interesting or promising but whether it will work for them.
- 3. Decision Individuals choose to adopt or not adopt the innovation.
- 4. Implementation Individuals put the innovation to use.
- 5. Confirmation Individuals seek reinforcement of the adoption decision or reverse that decision.

These categories apply differently to different individuals, however. Some people are more likely to take the risks associated with adopting innovations; others are resistant to change. Rogers notes five categories of innovation adopters, ranging from the "innovators" themselves, to "early adopters," the "early majority," the "late majority," and "laggards."

Early adopters, for instance, may be less dependent on interpersonal communication channels than others in the innovation adoption-decision process, while laggards will resist adoption until seemingly everyone else in the marketplace has already embraced the innovation. Most people, of course, fall somewhere in the middle and may become generally aware of an innovation through mass communication channels but will not adopt it until they have heard that some amount of their peers have adopted the innovation and they have sought information from them to help shape their own adoption decisions.

interested in fostering learning and hoping to promote effective efforts to drive positive social change.

#### **Recommendations:**

- 1. When attempting to drive uptake of ideas or practices, take into account organizational context, including fit with incentives, culture, norms, and available resources.
- 2. Choose communications channels (interpersonal vs. mass media) based on the nature of the innovation being spread and whether there is general awareness of the innovation, broad persuasion to employ it, or a final adoption decision.
- 3. Aim to help practitioners obtain information on whether an innovation will help them address challenges they face in their own context.
- 4. Create opportunities for learners to test and experiment with innovations before committing to them.

### 2.4 Knowledge Management and Organizational Learning

The literature on knowledge management and organizational learning outlines how the structures, cultures, and processes within organizations shape learning. As with the literature on the diffusion of innovations, much of this literature comes from the private sector and reflects the belief that effective organizational learning drives innovation, and as a result, competitive advantage for firms. As a result, much of it focuses on internal firm practices and examines how these can be engineered to capture and disseminate knowledge emerging from production and business processes. Our concern, however, is how individuals acquire and apply new information from external sources in international development. This new information can be from best practices emerging from another place, from academic research, or from others' experiences. While linked, this distinction between learning from internal sources and absorbing information from the outside limits the applicability of much of this literature to our work.

Nevertheless, this literature can help us unpack organizational learning's different dimensions. For

instance, researchers have developed definitions of organizational learning that recognize that it is an abstract construct comprised of multiple distinct processes and components including the following (see Jerez-Gomez, Cespedes-Lorente, and Valle-Cabrera, 2005):

- The firm's management supports organizational learning.
- The firm has a "collective conscience" and individuals see that as a system to which each element contributes.
- Organizational knowledge is integrated from individual knowledge.
- Individuals have the capability to question the organization.

The cultural nature of this formulation of organizational learning is striking. It is not merely a set of institutional arrangements or a specific activity, per se. Instead, organizational learning comes down to norms and an environment that support reflection and questioning. In addition, organizational learning, like individual learning, includes both acquiring new knowledge and using that knowledge (Mórales et al. 2005). In other words, learning results not just from exposure to new ideas but also from implementing those ideas, reflecting on what worked and what did not work, and iterating and innovating as a result.

#### 2.4.1 Knowledge Management and Organizational Learning in International Development

In the international development world, creating organizations capable of this process of translating new knowledge into innovative practices comes with unique challenges. Much of the literature focused on learning within NGOs centers on monitoring and evaluation. While of course important and related, monitoring and evaluating one's own work provides very different information than does the insights and experiences of others. Understanding learning within NGOs, CSOs, and aid agencies requires taking into account their particular context, which can include ever-changing policy environments, northsouth knowledge flows, organizational capacity, as well as poor incentives, feedback systems, and management, all of which impede learning (Carlson et. al. 2000). At the same time, the nature of the

information that comes from evaluations can be difficult to translate into knowledge that can be put into practice within different contexts.

#### Recommendations:

- 1. Recognize that individual learners exist within contexts and organizational environments that can either facilitate or inhibit learning.
- 2. Seek, where possible, to provide individuals with an opportunity to experiment with new ideas within their own organizations.

# 2.5 Communities of Practice

Like many of the bodies of knowledge already explored, much of the literature available on communities of practice (CoPs) focuses on their role in knowledge management within the private sector. Relatively few examine CoPs as a global knowledgesharing modality. Nevertheless, a review of the more traditional CoP literature provides useful insights for understanding how practitioners learn.

#### 2.5.1 History and Definition

The term "community of practice" (CoP) emerged in the 1990s to describe a key source of practitioner peer learning (Wenger and Snyder 2000) and reflects the insight that knowledge is not always a static set of information that is simply captured from one party and transmitted to another. Wenger, who helped coin the term, went on to define a CoP as "a group of people who share a concern, a set of problems, or a passion about a topic and who deepen their knowledge and expertise by interacting on an ongoing basis," (Hearn and White 2009). He notes that this model is distinct from "traditional knowledge management approaches (which) attempt to capture existing knowledge within formal systems such as databases." Instead, CoPs can address practical knowledge because they involve the participation of the people who are "creating, refining, and communicating knowledge" (Wenger 1998). Hearn and White (2009) add that CoPs are most often self-selecting and voluntary and are characterized by mutual learning, shared practice, and joint exploration of ideas. Their essential role in knowledge sharing involves acting as a gateway for information exchange and interpretation (Wenger 1998).

#### 2.5.2 Best Practices of Offline CoPs

The literature reveals a number of established best practices for CoPs, which can be lumped loosely into three categories:

1. Establishing a community of members. A

well-functioning CoP must start with the right members. Ideally, members should share common knowledge and passion (Wenger and Snyder 2000). It is often helpful to choose some people to populate the CoP who already know one another and can continue to build on their already established connections (Ganon-Leary and Fontainha 2007). That said, a level of diversity in participants is also desirable (Hovland 2005) to keep the community open-minded to minority views and dissent (Hearn and White 2009). However, just building a CoP's membership is not enough. Members need to feel a sense of connection and purpose (Wenger and Snyder 2000; Ganon-Leary and Fontainha 2007). Such a sense of community is necessary to establish the trust that facilitates collaboration (Johnson 2001). Without trust, CoPs risk a loss of membership if contributors feel too intimidated to participate (Ardichvili 2003) or fear losing ownership of their intellectual property (Van Baalen et al. 2005; Ganon-Leary and Fontainha 2007).

- Facilitating interactions. While many CoPs aim to become self-sustaining over time, active facilitation helps foster active dialogue and trust, and without proper facilitation, participation may dwindle and ultimately undermine the value of the CoP (Wenger and Snyder 2000; Ramalingam 2006; Hovland 2005; Hemmasi and Csanda 2009).
- Providing multiple avenues for discussion. Finally, to be effective CoPs need to include genuine t discussion and exchange, rather than one-way information pushes and passive learning (Hearn and White 2009).

#### 2.5.3 Virtual CoPs

The past decade has seen a proliferation in the number of virtual CoPs. Some argue that technology has fundamentally changed the essence of CoPs, as their "size and membership is no longer constrained by geography, but by the amount of time people can devote to their communities," (Hearn and White 2009). Virtual CoPs can be organized around discrete ideas or tasks, rather than location, to bring likeminded individuals together (Johnson 2001). Freed from hard geographic and temporal constraints, virtual CoPs seem to promise the benefits of traditional offline CoPs, but at scale.

Nevertheless, getting members to engage online can be a challenge. The relative ease of joining an online community makes it possible to be involved in multiple CoPs at once, potentially diluting the sense of belonging and responsibility associated with membership. Furthermore, the sense of community and the trust it engenders are much more difficult to create in a purely online space than in a traditional offline CoP. When individuals are not committed to the CoP, they may act more as observers than active knowledge contributors (Hearn and White 2009). CoPs therefore must provide some value to participants so that members become willing to contribute value of their own (Hearn and White 2009). At the same time, virtual CoPs run the risk of emphasizing technological solutions over the social and other contextual factors that often influence learning (Hearn and White 2009). This can lead to language barriers (Ganon-Leary and Fontainha 2007) as well as cultural and knowledge barriers (Johnson 2001).

Despite these challenges, efforts to design virtual CoPs that effectively facilitate learning have emphasized the following:

- Ease of use. Those who participate in online platforms, whether practitioners, scholars, government agents, or average citizens, have competing priorities and time constraints. Therefore, platforms should be easy and intuitive to contribute to and participate in (Ardichvili 2003; Sharratt and Usoro 2003; Matthews and Simon 2012; Van Baalen et al. 2005; Wenger 2001; Ganon-Leary and Fontainha 2007).
- 2. **Content.** Virtual CoPs should take advantage of multiple channels and media formats to facilitate knowledge sharing, emphasizing interactive materials over text-based resources to promote

interaction and dialogue and to avoid passive learning approaches (Pan and Leidner 2003; Johnson 2001).

 In-person connections. While virtual CoPs can sustain themselves through online channels, they remain dependent on the development of trusting relationships, which are best fostered through face-to-face meetings (Kimble and Hildreth 2005; Ganon-Leary and Fontainha 2007; Fisher 2010; Sharratt and Usoro 2003; Van Baalen et al. 2005).

Finally, it is important to remember that there is no one size fits all solution to developing a CoP, virtual or otherwise. The best practices listed above are guidelines to be adapted and strategically considered in the development of a vibrant community.

#### Recommendations:

- 1. Facilitate genuine dialogue and exchange for creating, refining, and communicating knowledge in order to build an active and vibrant online community.
- 2. Establish a shared sense of purpose by bringing together passionate individuals in a trusting and open environment.
- 3. In order to gain valuable contributions from community members, make explicit the intrinsic value of belonging to the CoP.
- 4. Do not put technology first instead focus on the cultural and human-centered design elements that will allow information sharing to transcend contextual barriers.

## 2.6 Information Divide

Specifically in the context of international development, learning efforts often take place against a digital divide between those with access to emerging technologies and those who lack access as well as against a history in which Euro-American NGOs, aid agencies, and multilateral institutions have often devalued the knowledge and voices of people from developing countries, in favor of a view that the most important knowledge flows from the "West to the rest."

Scholars and development practitioners, however, have begun to problematize the notion of the "north as information providers" and the "south as information recipients." But historical biases, driven by Western perspectives of what constitutes worthwhile knowledge and best practices, and described in Box 2.6.1 below, have proven difficult to break.

Technology also plays an important role in the equation. Information and communication technologies (ICT) are often assumed to be essential for improving development and for bridging this information divide (McFarlane 2006b). The assumption is often made that simply deploying mobile phones and other commonplace ICT solutions will, in itself, enable people to communicate and participate fully in various development efforts (Mansell 2014). However, typically there is minimal input from the end-users themselves when it comes to designing ICTs, resulting in Western-driven and, often, misguided approaches to producing and sharing knowledge (Mansell 2014). McFarlane (2006b) elaborates that "neglect of local initiative in the design of development efforts and a threat of erosion of indigenous and informal systems due to the influence of formal, ICT-based, Western-oriented information systems" is detrimental to the open and equitable sharing of knowledge.

Technology-dependent approaches to learning can also be counterproductive. They run the risks of engaging only those who are already most engaged and of reinforcing the position of those already in a position of power (Norris 2000). In addition, information made available online often lacks content that is relevant to disadvantaged communities (Chen and Wellman 2004).

As a final point of reflection, it is important to note that even the categorization of "Western" vs. "Non-Western," "North" vs. "South," "Core" vs. "Periphery," or any other variation of that concept, serves as a barrier to learning (McFarlane 2006a). Such categories can themselves ascribe power to some actors over others.

#### **Recommendations:**

- 1. Encourage poor and marginalized voices and view their knowledge as a valuable contribution to the learning process.
- Involve the target learners and end users in intervention and resource design, so that knowledge is relevant to their needs.
- 3. Avoid including only those who are already connected and seek out traditionally excluded voices.

#### Box 2.6.1: Global Knowledge Biases

Traditionally, development knowledge has been spread through Western urban centers and in Western languages (Briggs and Sharp 2004), often at the cost of compromising its original voice and intent as it is translated to fit a Western narrative (Chen and Wellman 2004). This form of knowledge transfer contributes to the implicit belief that only knowledge that conforms to a Euro-American narrative and format can be taken seriously (McFarlane 2006a). Further, as multilateral organizations have attempted to position themselves as the authoritative arbiters of development solutions, the result is that those "solutions" are often ill fit to address the problems facing the majority of the world (McFarlane 2006a). Meanwhile, knowledge from the people best positioned to understand and address these problems tends to be treated as an artifact – or worse, trivialized and disregarded – rather than viewed as a line of critical, alternative reasoning or considered a source of solutions (Briggs and Sharp 2004).

# Chapter 3. Insights Harvested from R4Ds own Experience<sup>4</sup>

R4D's own experience has yielded useful knowledge about how practitioners best learn. Our learningrelated initiatives have ranged from online platforms that connect health and education practitioners with one another in the hopes of creating new knowledge and driving exchange, to international networks dedicated to promoting learning among government officials facing similar challenges in implementing universal health care, to facilitation of peer learning and knowledge sharing among social accountability practitioners. A selection of those programs is profiled in box 3.0.1 below. Across these different initiatives, our team has used a wide variety of modalities for spreading ideas and knowledge. This diverse experience has suggested that there is no single optimal channel for sharing information. Instead, each has its own strengths and drawbacks, and the quality of any learning activity's design – the clarity of its objectives, the fit with learner needs, and the quality of facilitation, among others – matters more than the particular delivery modality itself.<sup>5</sup> Though it has not uncovered any silver bullets, this experience has provided practical insights about how best to support learning, some of which are highlighted below.

#### Box 3.0.1 Supporting practitioner learning at Results for Development

R4D's work to promote learning includes production of new knowledge through original research, peer learning across multiple sectors, close collaboration with organizations all over the world looking to enhance the impact of their work, and more. The following program descriptions provide a snapshot of R4D programs with a strong learning focus.

The Joint Learning Network (JLN) for Universal Health Coverage brings together practitioners and policymakers from ministries of health, national health financing agencies, and other key government institutions in 22 Asian, African, Latin American, and European countries to address the practical challenges involved in implementing universal health care. Members of the network meet to share experiences, learn from one another, and develop new resources to improve efforts to provide universal health care.

The Center for Health Market Innovations (CHMI) and Center for Education Innovations (CEI) identify, analyze, and connect innovative health and education efforts in low- and middle-income countries. The centers are driven by the hypothesis that, if harnessed effectively through creative new approaches and policies, innovations in health and education can contribute to improved access to quality, affordable care and education, especially for the poorest and most vulnerable. The backbone of each center is a database of profiles of innovative programs around the world. Both centers have networks of regional "hubs" that provide those programs opportunities to learn from one another and collaboratively produce new knowledge.

Through its **"Learning Lab" approach**, R4D has developed and piloted a new set of low-cost monitoring and evaluation (M&E) tools and processes that support rapid learning. The approach involves incorporating structured experimentation into project implementation, and then using the results of that experimentation to inform design and process decisions. The Learning Lab grows out of the insight that program implementers know that they need to embed learning and evaluation into their work, but often struggle to overcome practical barriers to doing so. It includes working with programs to develop or refine a cogent theory of change, define the key assumptions and design choices that need to be made, select and experiment with design options, and incorporate data from experiments into program design decision-making.

<sup>&</sup>lt;sup>4</sup> These insights are drawn from the experiences of representatives of multiple R4D teams working on projects with significant learning components including the <u>Center for Health Market Innovations</u>, the <u>Center for Education Innovations</u>, <u>Harnessing Non-State Actors for Better Health for the Poor</u>, the <u>Joint</u> <u>Learning Network</u> for Universal Health Coverage, and <u>WASH Innovations</u>.

<sup>&</sup>lt;sup>5</sup> Conversation with Bev and Etienne Wenger-Trayner, 26 May 2015.

#### Peer networks help drive innovation and the diffusion of new ideas

Networks are integral to the spread of good ideas and practices. Well-designed networks can create trust, foster relationships, and provide tailored learning opportunities that can dramatically lower the barriers to accessing new ideas and putting them into practice. For instance, as part of our work on CHMI, R4D noted that there are few examples of programs successfully scaling up. Innovative social enterprises may have potential for impact, but often they face challenges providing quality, affordable care over the long-term. We also noted that promising models seeking to scale up require iteration to learn and improve upon their practices – but the cost of learning can be steep, and available sources of funding do not always support these steps.

Purposeful, engaged networks can lower these barriers. We have learned that spaces that provide practitioners an opportunity to come together to share and test out new ideas, to reflect on experience adapting and iterating, and to take ownership of the learning process are invaluable in working to ensure innovative ideas and practices spread. Through programs like the JLN, which fosters learning from experience and supports research on universal health care scheme design and implementation, and the Primary Care Learning Collaborative inspired by the JLN and launched under the auspices of CHMI, we have endeavored to provide those spaces. Both networks give programs an opportunity to work collaboratively with peers to address shared challenges.

# Learning networks should focus on addressing practical challenges and needs

Networks are not simply about "dissemination." Their purpose is not to provide a space for one party to "teach" others – whether peer organizations or outside experts. Instead, they work best when they provide a space for network members to address concrete challenges and needs. In the process, they can serve not just as a forum to transmit knowledge, but rather as the locus of its creation. The aforementioned Primary Care Learning Collaborative responded to a critical challenge in the field: few social enterprises focused on delivering primary care were scaling up. It addressed that challenge head on by providing spaces where program leaders themselves could set the agenda, learn from one another, and create solutions together.

The result was that the collaborative transcended the "talk shop" phenomenon that often afflicts professional networks. Members jointly produced an <u>"Innovators Handbook,"</u> a "living" learning product that captures collaborative members' tacit knowledge and experience. The takeaway is clear: when networks have a clear purpose, provide identifiable value, and create a space not just for exchange but also for creation, they can be an integral part of the learning process.

# Focus on adaptation, not just scale or replication

A desire to see greater impact from international development efforts has driven much of the recent interest in learning. One avenue to greater impact is through scale. Figure out what is working and do it on a larger scale, the thinking goes, and you will see greater impact. As has been explored at length elsewhere, "scaling up" is hardly straightforward. Many programs R4D has worked with through CHMI, CEI, and other programs face enormous challenges in scaling up, and many have expressed significant interest in finding and adapting promising practices from others, rather than replicating program models in their entirety.

In response, R4D developed a <u>series of initiatives</u> <u>to foster improvement and adaptation of health</u> <u>innovations</u>. The result was a framework that guides users to move beyond simply replicating programs. Rather than the program itself being the main unit of analysis, the framework helps identify "core components" within innovative program models. Highlighting these core components can facilitate the spread of promising or proven practices to other programs or contexts.

# Focus on tacit and operational knowledge

Often, we assume that we want to learn "what works," but this itself suggests an emphasis on evaluation. Does an education program lead to children learning more? Does a health program lead to higher vaccination rates? These questions are important, of course, but differ significantly from the operational challenges program managers face on a day-to-day basis. Designing effective programs requires iteration, experimentation, and an understanding of operational detail that impact evaluations, most existing monitoring tools, case studies, and other traditional "knowledge products" fail to capture. We have found through the JLN and other R4D programs that discussions and other informal learning opportunities aimed at helping practitioners draw out this tacit and operational insight can be a powerful complement to other types of knowledge creation and sharing strategies. The "Learning Lab" model described above stems directly from this insight. Early indications are that by working with programs to think through and test alternative design features of key project elements can elucidate the types of operational insights that can be the difference between success and failure.

## Conclusion

This paper marks an initial effort to bring new information and insights into the process of designing learning efforts and modalities in international development. Unsurprisingly, it does not yield a straight-forward set of conclusions about the "best" types of learning modalities or means of identifying or sharing best practices. If anything, this exercise underscores the need to unpack what we mean by "learning" and answer the "who," "what," and "why" questions – Who is doing the learning? What are they learning? And why are they learning? – and to ensure the answers to these questions inform learning activity and resource design.

The findings from the literature, along with the insights gleaned from R4D's own experience designing and leading learning activities, have

produced a set of recommendations to guide those who will be designing learning activities. These guidelines remain very general. They do not lend themselves to a neat typology that directly maps one set of characteristics, content, and objectives onto a specific learning design or activity. However they are geared to avoiding the pitfalls that can befall efforts to promote learning: communities of practice with no clear raison d'être, zombie platforms with no users, and more. Our hope is that in able to provide the kind of broad guidance that can increase the likelihood that learning activities will be both successful and cost-effective, and that efforts to do so will reflect the significant existing literature and research.

## Bibliography

Ardichvili, Alexander, Vaughn Page, and Tim Wentling. "Motivation and barriers to participation in virtual knowledge-sharing communities of practice." *Journal of Knowledge Management*, vol. 7, no. 1 (2003): 64-77.

Argote, Linda. Organizational learning: Creating, retaining and transferring knowledge. Springer Science & Business Media, 2012.

Bach, Jonathan, and David Stark. "Link, search, interact the co-evolution of NGOs and interactive technology." *Theory, Culture & Society*, vol. 21, no. 3 (2004): 101-117.

Ballantyne, Peter and Chris Addison. "Cooperation on the Web: Trends and practice in the development sector." *Information Development*, vol. 16, no. 1 (2000): 15-23.

Baumgartner, Lisa M. "Andragogy and Self-Directed Learning: Pillars of Adult Learning Theory." In New Directions for Adult and Continuing Education. No. 89 (2001).

Briggs, John, and Joanne Sharp. "Indigenous knowledges and development: a postcolonial caution." *Third World Quarterly*, vol. 25, no. 4 (2004): 661-676.

Carlsson, Jerker, and Lennart Wohlgemuth, eds. Learning in development co-operation. Stockholm: Almqvist  $\varpi$  Wiksell International, 2000.

Cercone, Kathleen. "Characteristics of adult learners with implications for online learning design." (2008): 137-159.

Chen, Wenhong, and Barry Wellman. "The global digital divide–within and between countries." IT & Society, vol. 1, no. 7 (2004): 39-45.

Cranton, Patricia. "Teaching for Transformation," in New Directions for Adult and Continuing Education, No. 93, Spring (2002).

Doemeland, Doerte and James Trevino. "Which World Bank Reports are Widely Read?" Policy Research Working Paper 6851, The World Bank, 2014. <u>http://www-wds.</u> worldbank.org/external/default/WDSContentServer/ WDSP/IB/2014/05/01/000158349\_20140501153249/ Rendered/PDF/WPS6851.pdf.

Fisher, Catherine. "Knowledge Brokering and Intermediary Concepts: Analysis of an e-discussion on the Knowledge Brokers' Forum." Institute of Development Studies, 2010. Gannon-Leary, Pat, and Elsa Fontainha. "Communities of Practice and virtual learning communities: benefits, barriers and success factors." Barriers and Success Factors. eLearning Papers 5 (2007).

Garcia-Morales, Victor J., Francisco J. Llorens-Montes, and Antonio J. Verdú-Jover. "Antecedents and consequences of organizational innovation and organizational learning in entrepreneurship." Industrial Management & Data Systems 106, no. 1 (2006): 21-42.

Greenhalgh, Trisha, Glenn Robert, Fraser Macfarlane, Paul Bate, and Olivia Kyriakidou. "Diffusion of innovations in service organizations: systematic review and recommendations." Milbank Quarterly 82, no. 4 (2004): 581-629.

Hammill, Anne, Blaine Harvey, and Daniella Echeverria. "Understanding Needs, Meeting Demands: A useroriented analysis of online knowledge brokering platforms for climate change and development." International Institute for Sustainable Development, 2013. http://www.iisd.org/pdf/2013/understanding\_needs\_ platforms.pdf.

Handley, Karen, Andrew Sturdy, Robin Fincham, and Timothy Clark. "Within and Beyond Communities of Practice: Making Sense of Learning through Participation, Identity and Practice." *Journal of Management Studies*, vol. 43, no. 3 (2006): 641-653.

Hansman, Catherine A. "Context-Based Adult Learning," in New Directions for Adult and Continuing Education, No. 93, Spring 2002.

Hearn, Simon and Nancy White. "Communities of Practice: Linking knowledge, policy and practice." Overseas Development Institute, 2009. http://www.odi. org/sites/odi.org.uk/files/odi-assets/publications-opinionfiles/1732.pdf

Hemmasi, Masoud, and Carol M. Csanda. "The effectiveness of communities of practice: An empirical study." *Journal of Managerial Issues* (2009): 262-279.

Heuer, Barbara P., and Kathleen P. King. "Through the Fears and Years: Applying a Transformative Learning Model to ABE and Workplace Learning." Presented at the 2008 Adult Education Research Conference, June 4-7, 2008. Hovland, Ingie. "Successful Communication: A Toolkit for Researchers and Civil Society Organisations." Overseas Development Institute, 2005. http://www.odi.org/sites/odi.org.uk/files/odi-assets/ publications-opinion-files/192.pdf

Hovland, Ingie. Knowledge Management and Organisational Learning: An International Development Perspective: an Annotated Bibliography. London: Overseas Development Institute, 2003.

Jerez-Gomez, Pilar, José Céspedes-Lorente, and Ramón Valle-Cabrera. "Organizational learning capability: a proposal of measurement." Journal of business research 58, no. 6 (2005): 715-725.

Johnson, Christopher. "A Survey of Current Research on Online Communities of Practice." *Internet and Higher Education*, vol. 4 (2001): 45-60.

Kimble, Chris, and Paul Hildreth. "Virtual Communities in Practice." (2005): 2991-2995.

Kilgore, Deborah W. "Critical and Postmodern Perspectives on Adult Learning." in New Directions for Adult and Continuing Education, No. 93, Spring 2002

Knowles, Malcolm S. The modern practice of adult education. Vol. 41. New York: New York Association Press, 1970.

Mansell, Robin. "Power and interests in information and communication technologies and development: exogenous and endogenous discourses in contention." *Journal of International Development*, vol. 26, no. 1 (2014): 109-127.

Matthews, Paul and Judith Simon. "Evaluating and Enriching Online Knowledge Exchange: A Socioepistemological Perspective," in *Virtual Communities, Social Networks and Collaboration*, edited by Athina A. Lazakidou, 35-59. New York: Springer, 2012.

McFarlane, Colin. "Crossing borders: development, learning and the North–South divide." *Third World Quarterly* 27, no. 8 (2006): 1413-1437.

McFarlane, Colin. "Knowledge, learning and development: a post-rationalist approach." *Progress in Development Studies*, vol. 6, no. 4 (2006): 287-305.

Merriam, Sharan B. "Andragogy and Self-Directed Learning: Pillars of Adult Learning Theory." In New Directions for Adult and Continuing Education. No. 89. 2001. Norris, Pippa. "The worldwide digital divide." In Paper for the Annual Meeting of the Political Studies Association of the UK, London School of Economics and Political Science. 2000.

Pan, Shan L., and Dorothy E. Leidner. "Bridging communities of practice with information technology in pursuit of global knowledge sharing." *The Journal of Strategic Information Systems* 12, no. 1 (2003): 71-88.

Pappas, Christopher. "The Adult Learning Theory – Andragogy." eLearning Industry. 9 May 2013. <u>http://elearningindustry.com/the-adult-learning-theory-andragogy-of-malcolm-knowles</u>

Ramalingam, Ben. "Tools for Knowledge and Learning: A Guide for Development and Humanitarian Organisations." Overseas Development Institute, 2006. <u>http://www.odi.org/sites/odi.org.uk/files/odi-assets/</u> <u>publications-opinion-files/188.pdf</u>.

Rogers, Everett M. Diffusion of Innovations. Simon and Schuster, 2010.

Sharratt, Mark and Abel Usoro. "Understanding Knowledge-Sharing in Online Communities of Practice." Electronic Journal of Knowledge Management, vol. 1, no. 2 (2003): 187-196.

Shumate, Michelle, and Lori Dewitt. "The north/south divide in NGO hyperlink networks." *Journal of Computer-Mediated Communication* 13, no. 2 (2008): 405-428.

Van Baalen, Peter, Jacqueline Bloemhof-Ruwaard, and Eric Van Heck. "Knowledge Sharing in an Emerging Network of Practice: The Role of a Knowledge Portal." *European Management Journal*, vol. 23, no. 3 (2005): 300-314.

Ward, Vicky, Allan House, and Susan Hamer. "Knowledge brokering: The missing link in the evidence to action chain?" *Evidence & Policy*, vol. 5, no. 3 (2009): 267–279.

Wenger, Etienne. "Communities of Practice: Learning as a Social System." *Systems Thinker* (1998).

Wenger, Etienne. "Supporting communities of practice." A survey of community-oriented technologies (2001).

Wenger, Etienne C., and William M. Snyder. "Communities of practice: The organizational frontier." *Harvard Business Review*, vol. 78, no. 1 (2000): 139-146.

1111 19th Street, N.W., Suite 700 Washington, DC 20036 Tel: (202) 470.5711 | Fax: (202) 470.5712



info@r4d.org | www.r4d.org